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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

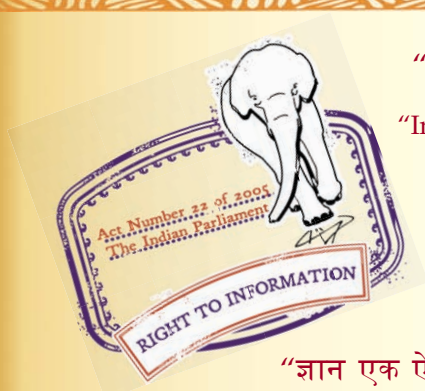
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6952 (1990): Engineering metrology - Cylindrical squares
[PGD 25: Engineering Metrology]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard
**ENGINEERING METROLOGY —
CYLINDRICAL SQUARES — SPECIFICATION**
(*First Revision*)

भारतीय मानक
इंजीनियरी माप विज्ञान — बेलनाकार गुनिया — विशिष्ट
(पहला पुनरीक्षण)

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards on 13 March 1990, after the draft finalized by the Engineering Metrology Sectional Committee had been approved by the Light Mechanical Engineering Division Council.

This Indian Standard was originally published in 1973. This first revision has been brought out in the light of prevailing technical practices followed in India.

In the preparation of this standard, considerable assistance has been derived from BS 939 : 1977 'Specification for engineers squares (including cylindrical and block squares)' issued by the British Standards Institution (BSI).

Specific requirements for handle have been incorporated. The requirements relating to marking of angular positions 0° , 90° , 180° and 270° adjacent to each end face has been deleted, as it does not affect the performance of cylindrical square.

Indian Standard

ENGINEERING METROLOGY— CYLINDRICAL SQUARES—SPECIFICATION

(First Revision)

1 SCOPE

1.1 This standard covers the requirements of cylindrical squares of sizes up to 750 mm length.

2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard:

IS No.	Title
2473 : 1975	Dimensions for centre holes (first revision)
7018 (Part 1) : 1983	Technical supply conditions for gauges: Part 1 General (first revision)

3 TERMINOLOGY

3.1 For the purpose of this standard, working surfaces mean both end faces and cylindrical surface.

4 TYPES

4.1 The cylindrical squares shall be of Type A and Type B (see Table 1).

5 DIMENSIONS AND TOLERANCES

5.1 Dimensions and tolerances for cylindrical squares shall be as given in Table 1.

6 MATERIAL

6.1 The cylindrical squares shall be made of suitable quality steel such as T215Cr12 and T105Cr1Mn60 as specified in IS 7018 (Part 1) : 1983.

7 HARDNESS

7.1 The hardness of the working surfaces shall conform to IS 7018 (Part 1) : 1983.

8 GENERAL REQUIREMENTS

8.1 In order to reduce weight, it is recommended that cylindrical squares of 300 mm length and larger should be of hollow section.

8.2 All cylindrical squares shall have their outer edges rounded off to radius of 1.5 mm or chamfered to 1 mm \times 45°.

8.3 The end faces of cylindrical squares shall be relieved to a depth of 2 mm.

8.4 Cylindrical squares shall be provided with permanent conical centres conforming to Type B Centre (with relief) of IS 2473 : 1975 for purposes of manufacture and reconditioning.

8.5 It is recommended that cylindrical squares particularly of 300 mm length and above shall be provided with suitable lifting handles. In such case, provision for fixing arrangement of handle shall be provided on both sides in the relieved surfaces to facilitate working on both end faces of cylindrical squares.

9 DESIGNATION

9.1 The cylindrical square shall be designated by type, length and IS No., for example the cylindrical square of Type B and length 300 mm shall be designated as:

Cylindrical Square Type B 300 IS 6952.

10 MARKING

10.1 Each cylindrical square shall be marked legibly and permanently and marking shall not protrude above the working surfaces of the cylindrical square. Each cylindrical square shall be marked with following particulars:

- a) Length,
- b) Type,
- c) Indication of the source of manufacture, and
- d) Number of this standard.

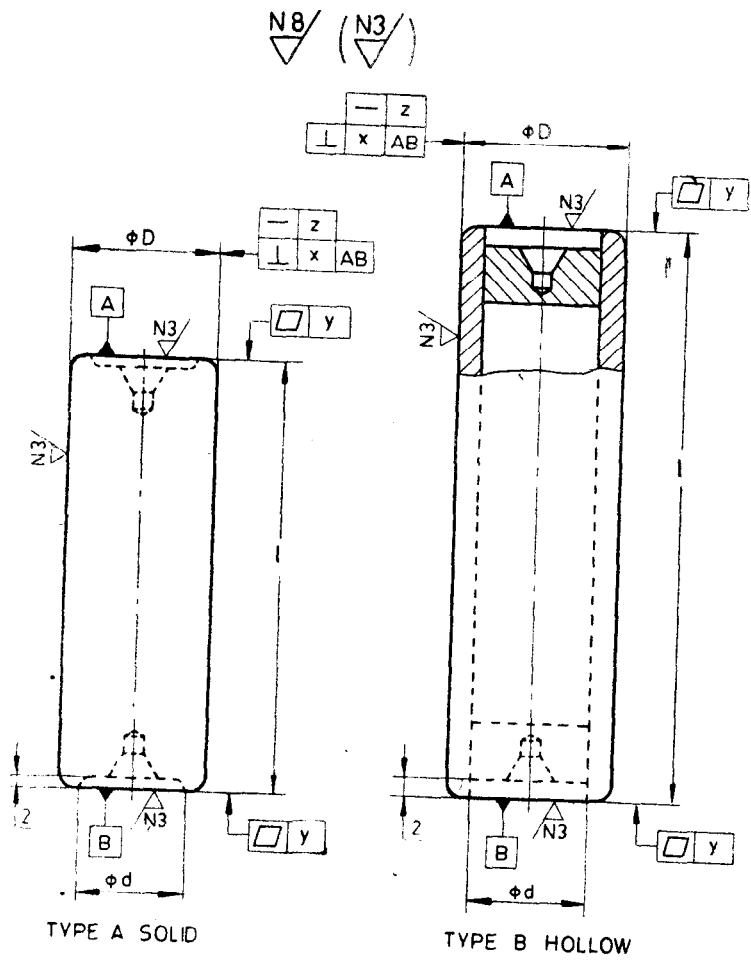
10.2 The cylindrical squares may also be marked with the Standard Mark, details of which may be obtained from Bureau of Indian Standards.

11 PRESERVATION AND PACKING

11.1 The working surfaces of cylindrical squares shall be protected against climatic conditions by suitable non-corrosive treatment.

11.2 Each cylindrical square shall be packed in a suitable wooden box provided for the purpose.

Table 1 Dimensions and Tolerances for Cylindrical Square
(Clauses 4 and 5)



Type	Nominal Size <i>l</i> mm	<i>D</i> mm	<i>d</i> mm	<i>x</i> μm	<i>y</i> μm	<i>z</i> μm
A	75	50	30	1.5	1	1
	150	70	50	2	1.5	1.5
	220	90	70	3	2	2
B	300	95	70	5	2.5	3
	450	120	85	7	4	4.5
	600	140	100	9	5	6
	750	160	115	11	6	7.5

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